## CLAIMS

What is claimed is:

1. A method of making a membrane electrode assembly for an electrochemical fuel cell comprising:

providing a first gas diffusion layer;

providing a one-sided catalyst coated membrane having a first catalyst layer coated on an ion-exchange membrane;

providing a gas diffusion electrode having a second catalyst layer coated on a second gas diffusion layer;

bonding the first gas diffusion layer to the one-sided catalyst coated membrane such that the first catalyst layer is interposed between the first gas diffusion layer and the ion-exchange membrane; and

bonding the gas diffusion electrode to the one-sided catalyst coated membrane such that the second catalyst layer is interposed between the second gas diffusion layer and the ion-exchange membrane.

2. The method of claim 1 wherein both bonding steps occur simultaneously.

3. The method of claim 1 further comprising applying an ionomer solution to the surface of the second catalyst layer before the bonding the gas diffusion electrode step.

4. The method of claim 1 wherein the second catalyst layer is the anode catalyst layer.

5. The method of claim 4 wherein the anode catalyst layer comprises a porosity-reducing additive.

6. The method of claim 5 wherein said porosity-reducing additive comprises polytetrafluoroethylene.

7. The method of claim 6 wherein the anode catalyst composition comprises between 5% and 32% by weight of polytetrafluoroethylene.

8. The method of claim 6 wherein the anode catalyst composition comprises between 10% and 29% polytetrafluoroethylene.

9. The method of claim 6 wherein the porosity-reducing additive further comprises acetylene carbon black.

10. The method of claim 6 wherein the providing a gas diffusion electrode step comprises coating the anode catalyst layer on one side of the second gas diffusion layer and then sintering the catalyst coated gas diffusion layer.

11. The method of claim 10 wherein the sintering step is at a temperature between about 330 and 420°C.

12. The method of claim 10 wherein the providing a gas diffusion electrode step further comprises applying an ionomer solution to the surface of the anode catalyst layer after the sintering step.

13. The use of a one-sided catalyst coated membrane in the manufacture of a membrane electrode assembly.